

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application. An identifier indicating the status of each claim is provided.

Listing of Claims

1-48. (Canceled)

49. (Currently Amended) A camera signal processing apparatus comprising:

an interpolated pixel data generating means for interpolating pixel data in at least two directions based on a position of said pixel data and/or pixel data around said position, said pixel data being generated based on an imaging signal coming from a solid state image sensor in which an imaging light enters through a color filter having a different spectral characteristic for each pixel, thereby separately generating interpolated pixel data in said at least two directions;

a correlation detecting means having a band-pass filter $[-1, 0, 2, 0, -1]$ and a low-pass filter for detecting a correlation value indicative of a degree of correlation in each of said at least two directions of said interpolated pixel data generated by said interpolated pixel data generating means;

a color difference signal detecting means for detecting a color difference signal of each of said interpolated pixel data in each of said at least two directions generated by said interpolated pixel data generating means and interpolated pixel data added with said correlation value detected by said correlation detecting means in each of said at least two directions;

a selecting means for selecting a smallest one of the color-difference signal of said interpolated pixel data in each of said at least two directions and the color difference signal

of the interpolated pixel data computed by use of said correlation value in each of said at least two directions; and

an image generating means for generating an image based on the interpolated pixel data selected by said selecting means.

50. (Original) The camera signal processing apparatus as set forth in claim 49, further comprising:

a control means for controlling said selecting means;

wherein said control means controls said selecting means such that the selecting means selects one of the -color-difference signal of said interpolated pixel data in each of said at least two directions and the color difference signal of the interpolated pixel data computed by use of said correlation value in each of said. at least two directions.

51. (Original) The camera signal processing apparatus as set forth in claim 49, wherein said selecting means selects the smallest of the color difference signals, having at least a predetermined value.

52. (Original) The camera signal processing apparatus as set forth in claim 49, further comprising:

an absolute value converting circuit for making absolute the color difference signals of said interpolated pixel data in each of said at least two directions and said interpolated pixel data computed by use of said correlation value in each of said at least two directions;

wherein said selecting means selects a smallest color difference signal outputted from said absolute value converting circuit.

53. (Currently Amended) A camera signal processing method comprising the steps of:

interpolating pixel data in at least two directions based on a position of said pixel data and/or pixel data around said position, said pixel data being generated based on an imaging signal coming from a solid-state image sensor in which an imaging light enters through a color filter having a different spectral characteristic for each pixel, thereby separately generating interpolated pixel data in said at least two directions;

detecting a correlation value by use of a band-pass filter $[-1, 0, 2, 0, -1]$ and a low-pass filter indicative of a degree of correlation in each of said at least two directions of said interpolated pixel data;

detecting a color difference signal of each of said interpolated pixel data in each of said at least two directions and interpolated pixel data added with said correlation value in each of said at least two directions;

selecting a smallest one of the color difference signal of said interpolated pixel data in each of said at least two directions and the color difference signal of the interpolated pixel data computed by use of said correlation value in each of said at least two directions; and

generating an image based on the selected interpolated pixel data.

54. (Original) The camera signal processing method as set forth in claim 53, wherein one of the color difference signal of said interpolated pixel data in each of said at least

two directions and the color difference signal of the interpolated pixel data computed by use of said correlation value in each of said at least two directions is selected.

55. (Original) The camera signal processing method as set forth in claim 53, wherein the smallest one of the color difference signals having at least a predetermined value is selected.

56. (Original) The camera signal processing method as set forth in claim 53, wherein color difference signals of vertically interpolated pixel data, horizontally interpolated pixel data, and said interpolated pixel data computed by use of said correlation value are made absolute and

the smallest one of the absolute color difference signals is selected.